Rethinking Subject Agreement in Swahili

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1. Swahili Class Prefixes

As is well known, Swahili (like other Bantu languages) features a system of noun classes, each class being marked by a prefix on the noun (referred to as the *class prefix*). The following classes are generally distinguished:

(1) Swahili noun classes (Ashton 1959:10)

1.	m -tu [[1-man]	'person'	2.	wa -tu	[2-man]	'persons'
3.	m -ti [3-tree]	'tree'	4.	mi -ti	[4-tree]	'trees'
5.	ji-cho [5-eye]	'eye'	6.	ma-cho	[6-eye]	'eyes'
7.	ki-su [7-knife]	'knife'	8.	vi- su	[8-knife]	'knives'
9.	n -jia [9-path]	'path'	10.	n -jia	[10-path]	'paths'
11.	u -limi [[11-tongue]	'tongue'	14.	u- zee	[14-old]	'old age'
15.	ku-chez	za [15-pla	ay] [*] 'playir	ıg'			

16.

17.

18.

Class 15 is used exclusively for infinitivals. Classes 16-18 are locative classes. The classification into classes 1 through 14 basically yields a number of *gender* groups, each group consisting of two *number* classes (see Carstens 1993 for more careful discussion).

Classes 1 and 2 are reserved for [+human] beings (though not all [+human] beings are necessarily in class 1/2 (see below)).

2. Agreement via Class Prefixes

The class prefixes recur as agreement prefixes on adjectives (2) and numerals (3):

(2)	a.	m -tu 1-person	m -vivu 1-lazy	'a lazy person'
	b.	wa-tu 2-person	wa -vivu 2-lazy	'lazy people'
(3)	a.	wa-tu 2-person	wa-tatu 2-three	'three people'
	b.	vi-su 8-knife	vi-ne 8-four	'four knives'

Ashton (1959:46) remarks that the adjectival agreement "virtually converts the 'Adjective' stem into a noun in apposition." In fact, class prefixes can be applied to verbal stems to derive nouns of a particular class (4), and various class prefixes can be

applied to a single stem to derive different concepts (5) (see also Mufwene 1980):1

(4)	ganga	>	m -ganga	'doctor'
	cure		1-cure	
(5)	ganda	>	m -ganda	'Ganda (person)'
		>	ki -ganda	'Luganda (language)'
		>	u -ganda	'Uganda (country)'

3. Agreement Markers

Corresponding to the class prefixes, Swahili has sets of subject and object agreement markers which appear on the verb. The verb is roughly structured as in (6) (ignoring negation markers, relative markers, and voice morphology on the verb):

(6) Swahili Verb Structure

Subject Marker - Tense/Aspect - Object Marker - Stem - Mood

The paradigms of subject and object agreement markers are given in (7):

(7)	Class	Person		Subject Mark	ær	Object Marker
2	<u>2</u>	1 2 3 1 2	ni- u- a- tu- m-		-ni- -ku- -m- -tu- -wa-	
1 1 1	3 4 5 6 7 8	2 3	wa- u- i- li- ya- ki- vi- i- zi- u- ku- pa- ku-		-wa- -u- -i- -li- -ya- -ki- -vi- -i- -zi- -u- -u- -ku- -pa- -ku-	

¹ Example (4) from Polomé (1967:80). More generally, deverbal nouns are formed by means of a derivational suffix, which then requires a class prefix, as in *soma* 'read' > *msomi* 'reader' (Polomé 1967:77).

For example (Ashton 1959:45):²

(8)Hamisi a-me-ki-let-a ch-akula (<ki-akula) 7 food Hamisi SM_{1,3} PERF OM₇ bring IND 'Hamisi has brought the food.'

In (8), the class 1, 3rd person Subject Marker a-corresponds to Hamisi, which is a class 1 noun (referring to a [+human] being). The class 7 Object Marker -ki- corresponds to chakula, likewise of class 7 (with regular morphophonemic change, cf. Polomé 1967:63).

4. Other Use of the Subject Agreement Marker

The subject markers also appear outside of verbal morphology:

a) on demonstrative and interrogative pronouns

Examples:

(9)u-le b. m-ti hu-**u** m-ti **u**-pi a. m-ti C. 3 tree PROX SM₃ 3 tree SM₃ INT 3 tree SM₃ DIST 'that tree' 'this tree' 'which tree?'

on the relative marker and in other combinations with the '-o of reference' b)

The relative marker in Swahili is either (i) an infix located between the tense/aspect morphology and the object marker, or a suffix following (ii) the finite verb or (iii) a special relative complementizer amba (see Barrett-Keach 1985). In each case, the morphology of the relative marker is as in (10):³

(10) relative marker SM + o

For example:

² Abbreviations used in the glosses: SM = Subject Marker, OM = Object Marker, PERF = perfective, IND = indicative, DIST = distal, PROX = proximal, INT = interrogative, APPL = applicative. The class affiliation of the subject and object markers is subscripted, with additional person information following

³ With the exception of class 1, where the *o* of reference does not appear. The class 1 marker is often replaced by yu/ye for all three persons outside the domain of verbal morphology (Polomé 1967:123).

(11) a. **u**- + -0 > **o** REL_3

f m-lango f u-li-f o-fung-w-a na f m-vulana 3 door SM $_3$ PAST REL $_3$ close PASS IND with 1 boy 'the door which was closed by the boy'

the door which was closed by the boy

b. \mathbf{i} - + -0 > \mathbf{yo} SM_4 REL₄

mi-ti amba-yo i-ta-fa-a

4 tree COMP REL₄ SM₄ FUT suffice IND

'trees which will do'

The particle -o is dubbed 'o of reference' by Ashton (1959), and has many uses (for example in a third demonstrative pronoun, apparently meaning 'the one just mentioned', as in *mti huo < hu-u-o* 'that tree').

c) on possessive markers in combination with the '-a of relationship'

(12) **ma**-ji **y**-a moto 6 water SM₆ A heat 'hot water' [lit. water of heat]

d) on the quantifier -ote 'whole/all'

(13) **m**-wili **w**-ote 3 body SM₃ all '(my) whole body'

e) on the elements -enye 'having, becoming' and -enyewe 'him/itself'

(14) **m**-ti **w**-enye miiba 3 tree SM₃ having thorns 'a thorny tree'

(15) **m**-ti **w**-enyewe 3 tree SM₃ itself 'the tree itself'

f) with na 'and/with'

(16) **m**-toto **a**-na baridi 1 child SM_{1,3} with cold 'the child is cold' [lit. is with cold]

The wide spread use of the subject agreement marker outside of verbal morphology suggests that the subject agreement marker is not an agreement marker in the strict sense, i.e. an affix with no other function than to mark the congruence of the subject and the verb. Rather, the distribution of the agreement marker suggests that its status is closer to that of a pronoun.

5. Full Pronouns in Swahili

Full pronouns in Swahili occur in *bound* and *free* forms. The bound forms are illustrated in combination with the preposition *na* 'with/and' (Polomé 1967:105):

(17) Swahili full pronouns

class	person	free	bound
1	1	mimi	na-mi
	2	wewe	na-we
	3	yeye	na-ye
2	1	sisi	na-si
	2	ninyi	na-nyi
	3	wao	na-o

The third person plural(class 2) bound form *nao* apparently involves the *o* of reference, which returns in the free form together with the subject marker *wa* (Polomé 1967:105).⁴ Ignoring the third person plural, it is clear that the free form is derived from the root of the bound form through prefixing of a CV-reduplication. This leads to the following list of pronominal roots, juxtaposed with the subject agreement markers:

(18)	class	person	Personal Pronouns	SM
	1	1	mi	ni
		2	we	u
		3	ye	а
	2	1	si	tu
		2	nyi	m
		3		wa

The morphological dissimilarity of the Subject Markers and the personal pronouns (except in the 3rd person of class 1, where *ye* regularly appears as Subject Marker) suggests that the Subject Markers, if they are pronouns, are not *personal* pronouns. I will argue that they are resumptive pronouns of some kind, not unlike clitics or discourse bound demonstratives in other languages.

6. Against analyzing Subject Markers as Agreement Affixes

The following considerations suggest that the traditional analysis of the Swahili Subject Marker as an agreement affix is incorrect.

⁴ Polomé (1967:105) says that the *wa* in the free form is the class prefix, but I take it to be the same pronominal root that is ordinarily analyzed as a subject agreement marker.

6.1 Distribution

First, the Subject Marker in Swahili is widely used outside the realm of verbal morphology (see section 4). Subject agreement affixes, as currently understood, are designated morphemes indicating agreement between a subject noun phrase and a verb. A careful conclusion, therefore, would be that Subject Markers in Swahili are morphemes of an as yet unknown status, which are *also used* to express subject-verb agreement. We wil argue for a stronger conclusion, namely that subject-verb agreement in Swahili is not expressed at all.

6.2 Agreement ad sensum

As noted by Carstens (1993:156), noun class agreement is sometimes overruled when the subject is [+human] semantically, but outside of class 1/2 morphologically:⁵

(19) **wa**-le **vi**-jana **wa**-na-chez-a **m**-pira SM₂ DIST 8 young SM₂ PRES play IND 3 ball 'Those youngsters are playing ball.'

The 7/8 class prefix is regularly used for diminutives/pejoratives. Its appearance on *vijana* apparently has the very local function of marking the persons referred to as little or of low esteem. The Subject Marker on the distal demonstrative *wale* and on the verb *wancheza* apparently is determined by the semantic classification of *vijana* as [+human].

This agreement *ad sensum* is unusual in subject-verb agreement, but not unusual in constructions where a pronominal element resumes a previously mentioned entity, as in (20), from Dutch:⁶

(20) **Dat** meisje **die** is gek DIST-NTR girl DIST-NNTR is crazy 'That girl is crazy.'

6.2.1 On Carstens' Analysis of Agreement ad sensum

Carstens (1993:156-157) rejects the analysis of (19) in terms of 'animacy override' because agreement *ad sensum* is not always obligatory. She quotes:

(21) **ki**-toto hi-**ki ki**-na-lala 7 child PROX SM₇ SM₇ PRES sleep 'This tiny child is sleeping.'

⁵ In that case, adjective agreement may be *ad sensum* as well (Carstens 1993:156), though morphological agreement is apparently equally well possible (Gregersen 1967[:xx]).

⁶ The abbreviations used in the glosses are: NTR = neuter, NNTR = nonneuter. Neuter and nonneuter are the only two genders in Dutch.

But agreement *ad sensum* can generally be overruled by morphological agreement. Cf. Dutch:

(22) **Dat** meisje **dat** is gek DIST-NTR girl DIST-NTR is crazy 'That girl is crazy.'

It is the very existence of cases of *ad sensum* agreement that suggests that the Subject Marker in Swahili is not a subject agreement morpheme, but rather a kind of resuming pronoun comparable to the d-word *die/dat* in Dutch.

Carstens (1993) proposes that class prefixes are in fact number prefixes, and that class affiliation is determined by a lexical gender feature on the root. In her proposal, *vijana* is of class 1/2 on the basis of the lexical gender feature of the root *jana*, explaining the occurrence of the corresponding 1/2 Subject Markers on the demonstrative and the verb. The number prefix *vi*- is selected on the basis of exceptional word formation rules.

Cases like *kitoto* in (21), which do not trigger agreement *ad sensum*, are analyzed as involving an empty nominal root, associated with the diminutive interpretation, and marked with the class 7/8 gender feature. This root being the head of the compound [toto-∅], *-toto* will select the class 7/8 number prefixes and trigger class 7/8 agreement affixes on the demonstrative and the verb.

A problem with this approach in terms of an empty lexical head, is that more cases of class conversion exist, so that a variety of empty heads with particular gender features would have to be assumed (see Mufwene 1980). For instance, next to *watoto* 'children' and *vitoto* 'tiny children' there is also *matoto* 'big (ugly) children' (class 6). But for nouns that are already in class 5/6, like *masanduku* 'boxes', the big/ugly conversion is to class 3/4: *misanduku* 'big boxes'. If a zero head is responsible for the big/ugly conversion, the lexical gender features of the zero head are not fixed, but a function of the gender features of the overt head. This suggests that the class conversion is not mediated by an empty head, but is performed by selection of a deviating class prefix.

6.3 Quasi-passives

Swahili has a general Bantu phenomenon of subject-object inversion, where the fronted object triggers an agreeing subject marker on the verb (23b):

(23)wa-toto **wa**-li-kul-a vy-akula a. 2 child SM₂ PAST eat IND 8 food 'The children ate the food.' vi-li-kul-a b. vy-akula wa-toto 8 food SM₈ PAST eat IND 2 child 'The children ate the food.'

Following Russell (1985), I refer to this construction as the *quasi-passive* (see also Whiteley (1968:46-48), Bokamba (1976:70-78), Barrett-Keach (1985:98ff), Kinyalolo (1991), Ura (1996:234ff)).

Quasi-passives differ from genuine passives in (at least) two respects: genuine passives involve voice morphology (the infix -w-) and demotion of the subject of the active to chômeur status:⁷

The quasi-passive differs from the active in that the noun phrase following the verb may trigger object agreement in the active, but not in the quasi-passive:⁸

(25)	a.	wa -nakijiji	wa -me- m -chek-a	Juma	active
		2 villager	SM₂ PERF OM₁ laugh IND	Juma	
		'The village	rs laughed at Juma.'		
	b.	Juma	a-me-(#wa)-chek-a	wa- nakijiji	quasi-passive
		Juma	SM ₁ PERF OM ₂ laugh IND	2 villager	
		'The village	rs laughed at Juma.'	_	

Ura (1996) concludes from the subject agreement in the quasi-passive construction that quasi-passive involves raising-to-subject (A-movement), and describes the typologically rare subject-object inversion as the result of a particular parameter setting. This parameter setting allows simultaneous *overt* movement of the object and *covert* movement of the subject to the grammatical subject position, each movement triggered by a subset of the features checked in the grammatical subject position (assuming the feature checking theory of Chomsky 1995, chapter 4).

A problem with Ura's analysis of the quasi-passive, is that the quasi-passive object raising can be fed by regular passive object raising. This can be seen in double object constructions (Barrett-Keach 1985:108).

In Swahili double object constructions, only the indirect object can be raised to subject position in regular passive constructions (cf. Vitale 1981:130):

⁷ The appearance of ku- in the stem l- 'eat' in the active is conditioned by a prosodic rule (Ashton 1959:142).

⁸ Inclusion of the object marker in (25b) forces the active reading, where Juma laughs at the villagers.

(26) a. \mathbf{m} -vulana \mathbf{a} -li- \mathbf{wa} -pik-i-a \mathbf{wa} -toto \mathbf{ch} -akula 1 boy \mathbf{SM}_1 PAST \mathbf{OM}_2 cook APPL IND 2 child 7 food

'The boy cooked the children food.'

b. **wa**-toto **wa**-li-pik-i-w-a **ch**-akula 2 child SM₂ PAST cook APPL PASS IND 7 food

na m-vulana with 1 boy

'The children were cooked food by the boy.'

c. * **ch**-akula **ki**-li-**wa**-pik-i-w-a **wa**-toto 7 food SM₇ PAST OM₂ cook APPL PASS IND 2 child

na m-vulana with 1 boy

'The food was cooked for the children by the boy.'

(26c), with raising of the direct object, is ungrammatical. Nevertheless, a quasi-passive version of (26c) is possible (cf. Barrett-Keach 1985:108):

(27) **ch**-akula **ki**-li-pik-i-w-a **wa**-toto na m-vulana 7 food SM₇ PAST cook APPL PASS IND 2 child with 1 boy 'The food was cooked for the children by the boy.'

As Ura (1996:250f) argues, the quasi-passive in ditransitive constructions cannot be derived directly from an active underlying ditransitive source: there are no quasi-passives built on ditransitive verbs that do not also involve passive morphology. The only possible conclusion, then, is that (27) is derived from the passive construction (26c), so that (27) is to (26c) what (25b) is to (25a).

The fact that the quasi-passive is fed by the regular passive suggests that the quasi-passive is not A-movement, as Ura (1996) maintains.¹⁰

Bokamba (1976) refers to the quasi-passive as 'topicalization', which he distinguishes from 'left-dislocation'. Left dislocation is a fronting phenomenon that does

⁹ That (27) is a quasi-passive is supported by various tests, including the obligatory absence of the object marker and the obligatory presence of a postverbal noun phrase, and the impossibility of relativizing the postverbal noun phrase in the tensed relative (i.e. without *amba*) (cf. Barrett-Keach 1985:108-110).

¹⁰ In Ura's analysis of the quasi-passive, it is necessary that the subject and the object are in the same minimal domain at some point in the derivation(in overt syntax). (In that case, overt raising of either the subject or the object would be optional.) This is achieved by adopting the multiple specifier proposal of Chomsky (1995, chapter 4). In passive double object constructions, the subject does not play a role, and the quasi-passive in (27) could only arise if the two objects are in the same minimal domain at some point in the derivation (again in overt syntax). But this is explicitly rejected by Ura (1996:250f), because otherwise, we would wrongly predict Bantu languages to allow optional passivization of the direct object and the indirect object alike.

not affect the subject marker in Swahili (it does force the presence of an object marker agreeing with the fronted noun phrase):

(28) a. **ki**-tabu hi-**ki**, **ni**-li-**ki**-som-a 7 book PROX SM₇ SM_{1,1} PAST OM₇ read IND 'This book, I read it.' b. **ki**-tabu hi-**ki**, Asha alidai kwamba

7 book PROX SM₇ Asha claims that

ni-li-ki-som-a SM_{1.1} PAST OM₇ read IND

'This book, Asha claims that I read it.'

As can be seen in (28b), left dislocation does not involve subject-verb inversion, and it requires the presence of an object marker on the verb (a property shared with relative constructions). Bokamba (1976:78) also points out that topicalization (quasi-passive) and left-dislocation are used in different discourse contexts.

In arguing that the quasi-passive involves A-movement, Ura (1996:237-239) compares the quasi-passive with left-dislocation of the type in (28) (referred to as 'topicalization/left-dislocation' by Ura), noting among other things the difference with respect to the presence of the object marker. Taking the presence of the object marker to be the hallmark of A'-movement, Ura concludes that the quasi-passive involves A-movement.

However, it is clear from other languages that various types of A'-movement exist, and that the presence of resumptive pronouns/object markers in fronting constructions is dependent on the discourse function of the construction in question. In Dutch, for instance, two types of fronting can be distinguished: regular fronting, illustrated in (29a), usually called 'topicalization', and the 'hanging topic' construction discussed in Van Riemsdijk & Zwarts (1974), illustrated in (29b), and usually called 'left dislocation': 12

- (29) a. Dat boek heb ik (*het) nog nooit gezien that book have I it yet never seen 'I have never seen that book before.'
 - b. Dat boek, ik heb **het** nog nooit gezien that book I have it yet never seen 'That book, I have never seen it before.'

The left dislocation construction in (29b) shares many properties with the Swahili left dislocation construction in (28). The comma intonation and the presence of a resumptive object pronoun are particularly significant. The 'topicalization' construction in (29a) lacks these properties, yet there is general agreement on its A'-movement status.

¹¹ See section 7 on the status of the object marker in Swahili.

¹² As argued in Zwart (to appear), the left dislocation construction is somewhat artificial in spoken Dutch. It is, however, a very common fronting strategy in the world's languages.

I would like to maintain that the Swahili quasi-passive is like (29a). Note that (29a) can always be supplemented with a d-word agreeing with the fronted noun phrase, as in (20)/(22) (see Zwart, to appear):

(30) **Dat** boek **dat** heb ik nog nooit gezien DIST-NTR book DIST-NTR have I yet never seen 'I have never seen that book before.'

This is compatible with my hypothesis that the Swahili agreement marker is comparable to the resumptive d-word in Germanic.

6.4 Locative Inversion

Swahili shares with English (Hoekstra & Mulder 1990) and Dutch (Zwart 1992) the phenomenon of locative inversion, though certain differences exist (see Bresnan 1994).

One difference is that locative inversion in Germanic resembles expletive constructions, in that the finite verb agrees with the postverbal subject:¹³

(31) a. In de tuin zitten mensen in the garden sit-PL people

b. Er zitten mensen in de tuin there sit-PL people in the garden

In Swahili, the verb agrees with the fronted locative (Ashton 1959:127):

(32) **mw**-ituni **m**-me-lal-a **wa**-nyama 18 wood SM₁₈ PERF sleep IND 2 animal 'Animals are asleep in the wood.'

Assuming that the locative inversion constructions of Germanic and Bantu are otherwise comparable, the locative agreement in (32) is puzzling. However, if the subject marker on the verb in (32) is not an agreement prefix but a resumptive element comparable to the Germanic d-word used in topicalization, the anomaly disappears.

Note that locative inversion in Dutch does trigger locative morphology on the dword, replicating the locative agreement of Swahili:¹⁴

Main clauses like (31a) are always ambiguous between a topicalization construction and a locative inversion construction. See Zwart (1992) for discussion. Expletive constructions like (31b) have been analyzed as topicalization constructions, mainly because all Verb Second constructions were thought to be CPs. I take (31b) to be AgrSP, with the expletive occupying an A-position. See Zwart (1993, 1997) and also Hornstein (1991).

¹⁴ Insertion of a d-word is not possible in embedded clauses, suggesting that (33) is topicalization instead of locative inversion. There is reason to believe that locative inversion in Bantu is an instantiation of quasi-passive: the postverbal subject does not trigger object agreement, is not passivizable, and cannot be relativized (Bresnan & Kanerva 1989:15). If we are correct about the quasi-passive, that means that locative inversion in Bantu is a kind of topicalization as well. This would leave the evidence of Bresnan & Kanerva (1989:9f) and Bresnan (1994:93f) in support of the subject status of the locative in Chicheŵa locative inversion constructions to be accounted for.

(33) In de tuin daar zitten mensen in the garden DIST-LOC sit-PL people

If we are correct, the locative d-word is the Germanic counterpart of the locative subject marker of Swahili, and the subject agreement suffix *-en* in (31)/(33) has no counterpart in Swahili.

6.5 Existential Constructions

In addition to the other uses of the subject marker listed in section 4, the subject marker is used in a verbless construction involving an empty copula:

(34) **wa**-po SM_{2,3} LOC they here 'Here they are.'

The suffix -po is part of a series -po, -ko, -mo in which we recognize the locative elements of class 16-18, together with the '-o of reference' (Ashton 1959:18).

McWhorter (1992) traces the origin of this verbless construction back to an earlier stage of Swahili in which the past tense marker *li* still functioned as a copula:

(35) **wa-li-po** $SM_{2,3} COP LOC$ they are here 'Here they are.'

This suggests that (34) involves an empty copula, so that the construction is not, strictly speaking, verbless:

(36) $\text{wa-} \oslash \text{-po}$ $\text{SM}_{2,3} \text{ COP LOC}$ they are here 'Here they are.'

If (36) is the correct rendition of (34), the subject marker *wa*-cannot be analyzed as an agreement prefix: an agreement prefix attached to a zero verb would be typologically rare. On the other hand, if the subject marker is a pronoun of some kind, the structure in (36) is not at all anomalous.

6.6 Conclusion

The above observations suggest that the subject marker in Swahili is not an agreement prefix but a pronoun of some kind, possibly comparable to the resumptive d-word used in 'topicalization' in Dutch.

7. The Status of the Object Marker

There appears to be a consensus in the recent literature on Bantu, to the extent that the object marker is not an agreement affix but a pronoun of some kind, the presence of which is determined by discourse factors (cf. Wald 1979, Allan 1983).

Unlike the subject marker, the object marker is not obligatorily present. Displacement of the object noun phrase seems to strongly favor insertion of an object marker (see also (28)):

(37) a. Juma **a**-li-(**ki**)-som-a **ki**-tabu Juma SM_{1,3} PAST OM₇ read IND 7 book 'Juma read the book.'

b. **ki**-tabu **a**-li-**cho**-*(**ki**)-som-a Juma 7 book SM₁ PAST REL₇ OM₇ read IND Juma 'the book that Juma read'

Allan (1983:326) states that the object marker co-occurs with the object noun phrase when the object noun phrase is the topic of discourse, an effect often (but not exclusively) brought about by displacements.¹⁵

In addition, animacy appears to play a role, in the sense that with objects of class 1/2, the object marker is almost obligatory (Allan 1983:332). This in itself is enough to suggest that the object marker is not an agreement affix, agreement affixes usually not being conditioned by animacy or topicality.

7.1 On the subject and object markers in Chicheŵa

Bresnan & Mchombo (1987:26) add another observation bearing on the status of the object marker in Bantu, based on Chicheŵa. If the object marker is associated with the discourse function of topic, it should not be possible to question an object and still retain the object marker. This is because a questioned object is associated with the discourse function of *focus*, which clashes with the function of topic. Bresnan & Mchombo cite: ¹⁷

(38) kodí mu-ku-(* \mathbf{chi})-fún-á chi-yâni? Chicheŵa Q SM_{1,2} PRES OM₇ want IND 7 what 'What do you want?'

On the strength of this argument, Bresnan & Mchombo (1987) maintain that the subject marker is ambiguous between a pronoun (like the object marker) and a true agreement affix. The reason is that the subject marker does not clash with a questioned subject:

(39) kodí chí-yâni **chi**-ná-ónek-a? Chicheŵa Q 7 what SM₇ PAST happen IND 'What happened?'

¹⁵ See also Ashton (1959:45), Polomé (1967:160).

¹⁶ The object marker is obligatory with first and second person pronoun objects (Allan 1983:333), and "customary" with other objects of class 1/2, the exception being presented by nonreferential use of the class 1/2 object, as in *niliona mganga* [I-saw doctor] 'I sought medical advice'.

¹⁷ In Swahili, the object marker is not incompatible with a questioned object (Bresnan & Mchombo 1987:51), jeopardizing Bresnan & Mchombo's generalization somewhat (they tentatively suggest that Swahili object markers may be true agreement affixes as well—deviating from the general consensus in the literature).

The hypothesis advanced in this paper goes beyond that, and claims that the subject marker is never an agreement affix. We therefore have to address the asymmetry between subject markers and object markers illustrated in (38)-(39).

Bresnan & Mchombo's argument presupposes that the subject marker *qua* pronoun serves the same discourse function as the object marker. However, it is well known that not all cases of fronting are correctly described as topicalizations, in the sense that the fronted element is what the utterance is about (see Prince, to appear, for discussion). For example, a subject initial sentence in Dutch in which the subject is resumed by a d-word, as in (40) would not be correctly paraphrased as (41):

- (40) Jan **die** is gek John DIST-NNTR is crazy
- (41) #As for John, he is crazy.

The hypothesis advanced in this paper is that the Bantu subject marker has the same status as the Germanic d-word illustrated in (40). Whatever the discourse function served by the d-word and the subject marker is, it is not clear beforehand that it would clash with the focus function of the questioned element, as Bresnan & Mchombo (1987) assume.¹⁸

8. The Status of the Tense/Aspect Marker

If the subject marker and the object marker in Swahili are pronouns (presumably clitics), a question arises as to the status of the tense/aspect markers in Swahili. Since the tense/aspect marker appears between the subject marker and the object marker, the tense/aspect marker can no longer be analyzed as an affixal part of the verb structure (as in (6)) if the markers are pronouns.

The following tense/aspect markers may be distinguished: 19

(42) Swahili Tense/Aspect Markers (Polomé 1967:120)

-a- indefinite present-na- actual present-li- past

-ta- future -ka- subsecutive

-me- perfective/resultative-ki- imperfective/continuous

 $\begin{array}{ccccc} \text{(i)} & & \text{Wie} & \text{(*die)} & & \text{is} & & \text{gek?} \\ & & \text{who} & & \text{DIST-NNTR} & & \text{is} & & \text{crazy} \end{array}$

¹⁸ Note that d-words in Dutch are not compatible with questioning:

¹⁹ This listing is not complete. See Polomé (1967:113-126).

The origin of these tense/aspect markers is discussed in Meinhof (1967³). The following table summarizes the results:

(43) Origin of Swahili Tense/Aspect Markers (Meinhof 1967³:111-114)

-a
 [origin unclear]
 -na = conjunction/preposition meaning 'and/with'

 -li
 < copula 'to be' (cf. McWhorter 1992)
 -ta < taka 'want/will'²⁰
 probably = 'to go' (Meinhof 1967³:112)
 -me < mala 'finish, complete'
 -ki [no relation to a Swahili verb, cf. Proto Bantu yikala 'stay']
 -reserved
 -reserve

From this list it is clear that the tense/aspect markers in Swahili have a lexical origin, which is often quite clearly verbal. I would like to submit that they are in fact still verbs, hosting the proclitic subject marker and the enclitic relative marker.

This allows us to draw a parallel between the tense/aspect marker, an auxiliary verb, and the lexical verb. Both take an enclitic pronoun, as can be seen in (44):

In addition, both the auxiliary and the full verb take an enclitic relative marker, the latter only in case the former is absent:²¹

(45) a. ki-tabu ni-li-cho ki-som-a
7 book SM_{1,1} PAST REL₇ OM₇ read IND 'the book which I read'
b. vi-tabu ni-vi-som-a-vyo
8 book SM_{1,1} OM₈ read IND REL₈ 'books which I (habitually) read'

This further parallel between the auxiliary and the full verb is illustrated in (46):

It is tempting to analyze the distribution of the Relative Marker as the result of movement and adjunction of the verb to a relatively high position in the clause. Note that relative clauses in Swahili involve subject-verb inversion (Vitale 1981:98f):

(47)vi-tu a-li-**vyo** vi-fany-a Juma ${\rm OM_8}$ do IND 8 thing SM_{1,3} PAST REL₈ Juma 'the things Juma does' Juma a-li-vyo vi-fany-a b. **vi**-tu 8 thing OM₈ do IND Juma SM_{1,3} PAST REL₈

²⁰ Taka is used as the future tense marker in the so-called dependent tense (e.g. in relative clauses).

²¹ For expostitory purposes, I now depart from the standard orthography, separating the auxiliary from the full verb.

This subject-verb inversion is absent in the *amba*-relatives:

The pattern in (47)-(48) suggests that subject-verb inversion is the result of verb movement, which is blocked by the presence of a complementizer, much in the way verb second is blocked in embedded clauses in Continental Germanic languages (see Den Besten 1977, Vikner 1995, Zwart 1997).²²

In addition to (46), a number of other correspondences between the auxiliary and the main verb can be detected. The auxiliary appears to select the indicative marker on the main verb. If the auxiliary is absent, as in subjunctives, imperatives, and most negative tenses, the indicative marker *-a* is replaced by various affixes:

(49) Final Replacement in absence of auxiliary

subjunctive a > e imperative sg. $a > \emptyset$

pl. a > ani > eni

negative a > i

Correspondences of this kind suggest a concord relation between the auxiliary and the main verb, not unlike the concord between a particular auxiliary and the participial or infinitival morphology on the main verb in Indoeuropean languages. This concord relation is not easily expressed if the auxiliary is a tense/aspect affix on the main verb, as the standard analysis holds.

9. On Words in Swahili

The question of the determination of word boundaries in Swahili is one "of protracted controversy" (Guthrie 1948:3).²³ The standard orthography, adopted in the literature on Bantu (including this paper) follows the *conjunctivist* tradition, which Gregersen (1967:49) traces back to Doke (1929).

For verbs, the conjunctivist tradition implies that the elements listed in (6) as part of the verb structure in Swahili (subject markers, object markers, tense/aspect affixes, relative markers, and others) form a single word, together with the verb stem. The evidence is basically phonological, where word boundaries are determined by main stress placement.

The word order in (47a) suggests that the auxiliary and the main verb move together, undermining the approach advocated here, in which the two are separate verbs.

²³ See Gregersen (1967:49-52), who refers to Doke (1929), Guthrie (1948), Greenberg (1957), Van Wyk (1958). See also Doke (1936), Knappert (1959). The issue is generally treated as one of orthography.

On the opposite end stands the *disjunctivist* tradition, where each grammatical morpheme constitutes a word on its own.²⁴

Contemporary syntactic theory in principle allows us to maintain both the disjunctivist and the conjunctivist approach. Different morphemes may be regarded as separate 'building blocks' which are then combined in the course of the derivation by the operation Merge (Chomsky 1995, Josefsson 1997). In the most radical approach to morphology, words are only created after the syntactic derivation has been completed, by a separate component Morphology which converts syntactic structures into phonological strings (Anderson 1992, Halle & Marantz 1993, Zwart 1997). Conjunctivism, then, can be said to address the output of Morphology, where disjunctivism is only concerned with the input to Morphology.²⁵

The analysis of the verbal system in Swahili argued for in this paper is conjunctivist in the sense that it acknowledges that subject markers, object markers, relative markers, etc., which are taken to be essentially clitics, combine with verbal stems to constitute words. The analysis is also disjunctivist in the sense that it regards tense/aspect markers as separate word stems (auxiliary verbs) from the main verb stem. This intermediate position is not represented in the literature on the subject I have seen.

There is some evidence supporting the separation of the auxiliary and the main verb in a stress shift phenomenon described by Barrett-Keach (1985:37f). Primary word stress in Swahili is on the penultimate, and shifts with the addition of suffixes (Ashton 1959:5):

(50) a. jíko 'kitchen' jikóni 'in the kitchen' b. sóma 'read' [sg.imperative] soméni 'read' [pl. imperative]

In a fully structured verb (i.e. a verb form including at least a stem and a tense/aspect marker (auxiliary)), there is a secundary accent further to the left:

(51) **m**-tu **à**-li **kw**-énd-a soko-ni 1 person SM_{1,3} PAST OM₁₇ go IND store to 'The person went to the store.'

²⁴ Guthrie (1948:6) reproaches a disjunctivist like Junod (1896) for dubbing his disjunctivist approach a 'grammatical' approach, where, according to Guthrie, he should have called it a 'notional' approach. Apparently, Guthrie reserves the term 'grammatical' for approaches involving rigid morphosyntactic tests, and excludes reference to semantic import of morphemes from consideration. Guthrie backs up his methodology by referring to "the chaos that would result in Bantu or other languages from a consistent application of the notional principle in word division" (1948:6).

²⁵ The issue is slightly more complicated than this, in the sense that not all grammatical morphemes are necessarily separate building blocks in the syntactic derivation. Chomsky (1995), for instance, adopts the strong lexicalist approach according to which inflectional affixes are inseparable parts of lexical elements (the input for the operation Merge). If the Swahili subject markers are inflectional affixes, the strong lexicalist approach forces us to adopt the conjunctivist model. If not, the question of disjunctivism versus conjunctivism reduces to the question of how to describe clitics in a strong lexicalist approach (see for example Miller 1990). The distinction between strong lexicalism and weak lexicalism disappears in the approach to morphology advocated by Josefsson (1997), where words are the result of application of the operation Merge to morphemes.

As the word division in (51) shows, the secundary stress is penultimate in the auxiliary part of the verb structure. Moreover, addition of a relative marker to the auxiliary part results in stress shift exactly like in (50):

(52) **m**-tu **a**-lì-**ye kw**-énd-a soko-ni 1 person SM_{1,3} PAST REL_{1,3} OM₁₇ go IND store to 'the person who went to the store.'

Here it is interesting to note that the phonological evidence in support of the conjunctivist model hinges on the penultimate stress phenomenon: the word boundary can be projected from the word stress on the basis of the generalization that word stress is on the penultimate. By the same token, we must conclude that there is a word boundary separating the relative marker and the object marker in (52), and everywhere.²⁶

A problem for the word division proposed here is that the auxiliary part and the main verb part are never displaced independently of each other. A crucial test is provided by the subject-verb inversion in tensed relatives (cf. (47)), where one might expect the main verb part to be stranded to the right of the subject, on the word division entertained here. Apparently, the auxiliary and the main verb do form a unit of some kind (also suggested by the subordination of the auxiliary stress to the main verb stress), the status of which is unclear to me at this point.²⁷

The conjunctivist argumentation applies the word stress argument to main stress only, but, as Gregersen (1967:49) notes, this is not independently motivated.

²⁷ The unity of the auxiliary and the main verb could be the result of incorporation (cf. Baker 1988), but this would yield several problems. Assuming that the main verb would incorporate into the auxiliary, we would expect the former to precede the latter. A similar consideration argues against viewing the subject and object markers as heads of agreement phrases in the sense of Chomsky (1991), picked up by a verb undergoing head-to-head movement.

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